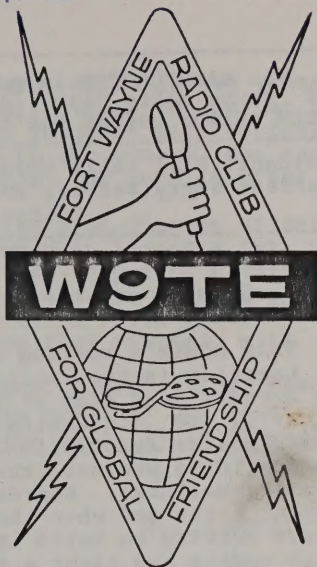


FWRA-FWRC MERGER



VOLUME 12 NUMBER 8

AUGUST 1985



FORT WAYNE
RADIO CLUB

FORT WAYNE, IND.

The HAMSPLATTER is published monthly by the members of the Fort Wayne Radio Club. All items to be published are required by the editor before the first Friday of the month.

President: Bill Hall, WD9HII Secretary: Lynn Hyndman, W9FC
VicePres: Harry Harvey, N9AR Treasurer: Doug Dunfee, N9BUQ
Editor: Ron Koczor, K9TUS

MEETING NOTICE

This month's meeting is Friday, August 16, 1985, at 7:30 pm. Location is the regular meeting site...the Salem Church on Lake Avenue, just east of the VA Hospital.

We'll be discussing the proposed merger with the Fort Wayne Repeater Association. We should also have reports on the club building project (the interface for accessing the club's two meter mailbox). Boards are still being re-fabricated after a layout error and when they may be done is anybody's guess! If you are waiting to build the interface, come to the meeting and get an update and light a fire under a few people! The club has invested a lot of money on putting together the parts for this project...so it will happen. Don't go out and buy your commercial interface yet. Hang in there!

There may be a program lined up; however, it wasn't decided at the time this newsletter was printed. So your editor will be surprised along with the rest of you! Last month's discussion on Smith charts was outstanding...too bad I couldn't tell you about it in advance!

We'll have the usual table of goodies in the back so join us!

FWRA/FWRC MERGER PLANS ANNOUNCED

The planned merger of the Fort Wayne Repeater Association and the Fort Wayne Radio Club was announced at the last FWRC club meeting. The merger would have the effect of combining the two organizations into FWRC. FWRC would assume responsibility for the FWRA repeaters (16/76 and 31/91 on two meters and one on 440).

The complete text of the proposed plan of merger is included in this issue of the HAMSPLATTER. State law requires that two-thirds of the club members approve this merger. Therefore a mail campaign will be initiated very soon to get your vote.

All of the legal hurdles have been cleared to merge the two groups. It is planned that the member vote will take place at the September FWRC meeting and that the merger will become official after the Board of Directors approve it once more and it is sent to the state of Indiana.

ED NOTE: This potential merger has been talked about for years. The last time the subject came up, it was dropped for a number of reasons. It is clear that FWRC needs to become a part

of the two meter scene in Fort Wayne if it is to remain a general interest radio club. It is also clear (to me, at least) that young hams use two meters as an integral part of their ham life. How many young people belong to our group? Not many! If we want them to be a part of the club, we need to offer them what they want.

It is also my opinion that the FWRA concept of being a "utility" which is there when you need it leaves a lot to be desired. The lack of activity on those very fine machines is a shame. Those repeaters should be a "watering hole" for a large number of high quality locals. Present users should realize that without use and support, those fine systems will never reach their full potential.

That's the beauty of the merger...FWRC gains resources which it now lacks...FWRA gains users which it now lacks. When your ballot comes to you in the mail, fill it in and mail it back IMMEDIATELY! Vote YES!

THE PREZ SEZ...

Bill, WD9HII

Please read carefully the enclosed "Agreement of Merger" between the Fort Wayne Radio Club and the Fort Wayne Repeater Association. Over the years there have been several attempts at this merger. They have always been thwarted for one reason or another. This time, your Board of Directors insisted that any proposal be in written form. A committee of two has been holding a series of meetings with representatives of the Repeater Association. The culmination of these meetings is the Agreement included in this issue. The agreement is written to be a legally binding document to be submitted to and recognized by the State of Indiana. It was written with the inputs of our resident corporate lawyer. Please read it, give it your careful consideration and bring your questions and comments to the August meeting.

Voting will take place at the September 20 meeting and your vote will be counted either by your being there to vote in person or by your mailing in the ballot you will receive before that meeting. All members eligible to vote in the club will be requested (in fact, urged!) to do so on this issue. I encourage your affirmative vote as I believe such a merger will benefit the Fort Wayne Radio Club now and for many years to come.

As repeater owner and operator, the club will have a higher community profile. Members will be able to contact each other regularly and conveniently. The TNT Net (FWRC Tuesday Night Talkers) can permanently QSY from the vagaries of two meters. Announcements of club activities, meetings, etc. will have a more real time value than HAMSPLATTER can give them.

These, as well as the business aspects of the merger, must be carefully weighed in your deliberations (as they were weighed by the Directors of the two groups and our legal beagle). I am confident that you too will see the advantages.

More at the August meeting...see you there!

THOUGHTS ON THE MERGER

Al, WB9SSE

The news broke last month that the Fort Wayne Radio Club and the Fort Wayne Repeater Association have been thinking about a merger. Speaking for the FWRA, I can say that the Repeater Association welcomes the prospect of a merger between the two groups. We believe that the combination of the two organizations will provide a significant "plus" for the Northeast Indiana amateur radio community. For those of you who are not familiar with FWRA, a thumbnail sketch is in order.

The FWRA is the oldest amateur two meter activity in the state, being in continuous business for over twenty years. At present, FWRA operates three repeaters; the 146.16/76 MHz open repeater, the 146.31/91 MHz autopatch repeater and the 444.875/449.875 MHz UHF repeater. The two meter machines utilize commercial Motorola (30 watt) transmitters and receivers while the UHF machine is a commercial E. F. Johnson unit. The controllers for all three machines and the autopatch hardware are all homebrew, built with an emphasis on simplicity and reliability. This is evidenced by the very dependable operating history of all three machines.

The repeaters are located at the Indiana & Michigan Electric Company's Spy Run facility, just south of State Street. At present all three antennas are located on the southwest leg of the I&M microwave tower. Each antenna is a commercial colinear unit; the 16/76 antenna is at 305 feet; the 31/91 antenna is at 200 feet and the 440 antenna is at 250 feet.

Anyone familiar with the present FWRA operation is aware that it has provided, by design, a low-key 2 meter capability to the Fort Wyane amateur. We believe that this capability has been provided to the satisfaction of the users of the FWRA facilities.

For the past few years, the FWRA has been maintained by Bill Kindred, WA9RAP; Jim Wolf, KR9U; Jim Leimer, KB9GY; Al Burke, WB9SSE, and numerous other volunteers. This group has had the interest in keeping FWRA services alive and well from both the management and technical perspectives. When FWRA and FWRC merge, this core group is anxious to continue supporting the activities of the FWRC repeater systems under the guidance of the FWRC Executive Committee.

We will actively encourage support and participation in all phases of repeater operation from the general FWRC membership. We hope you support this move!

MERGER RESOLUTION APPROVED BY BOARD

The Directors and Officers of FWRC at their last board meeting unanimously adopted the following resolution after discussion and upon the motion by Paul Taylor, WB9VCI, and second by Ron Meyer, KA9LLF:

BE IT RESOLVED: That the Agreement and Plan of Merger between the Club and the Fort Wayne Repeater Association, dated June 21, 1985, be and the same is hereby approved; and

BE IT FURTHER RESOLVED: The said Agreement and Plan of Merger be submitted to a vote of the members present in person, by written vote, or by written proxy at the regular meeting of the Club on September 20, 1985, at 7:30 pm, and that all members of the club be duly given notice of said vote and meeting.

FIELD DAY RESULTS FOR FWRC

Jim, KR9U

Well, another Field Day has come and gone! For those of you who missed it, you missed a good one...as usual! This year we had a lot of help; in fact, teardown took only two hours on Sunday.

We operated in the four station class, 4A. We had three HF stations on, a VHF station (which hit a super opening and garnered over 200 contacts) plus the Novice/Tech and OSCAR stations. The VHF station was new to the activity. They garnered more contacts than anyone thought they would, even though they operated out of the back of KA9A's Scout (the mice ate Ron, KA9LLF's tent!). Gee, I guess there's something to be said for VHF after all!

Our contact totals were as follows:

Total CW QSOS	987
Total SSB QSOS	1959

Included in the above are 240 VHF contacts and 150 Novice contacts (a first class effort by that crew!). Our total claimed score is about 8600 points which should put us first in 9-land and about tenth in the country in this class.

This year we saw a number of new operators show up and I heard, more than once, comments like "Gee, I didn't know this was so much fun!" No doubt about it, working in a Field activity like this is a lot different than working a contest at home! Skills and techniques are learned by watching others; using new equipment and seeing new antenna approaches give rise to inspiration and companionship that is second to none. That's what makes Field Day the best club activity of the year! When I was at my first Field Day, they told me that "If you haven't worked Field Day through the night, you haven't lived!"

A special thanks to all who participated in every way. It really makes the effort worth while.

See you next year!

NEW BYLAW APPROVED

The FWRC members present at the regular July meeting approved Bylaw 8 to the club's Constitution and Bylaws by unanimous voice vote. The new Bylaw reads as follows:

8. A member may vote in person, by proxy executed in writing, or by mail. Members voting by proxy or by mail shall be deemed present for the purposes of determining a quorum.

LOCAL PACKET SYSTEM ANNOUNCED

Jack Forbing, K9LSB, reports that HAMS, Inc. has a two meter digipeater operating in Fort Wayne. The system is running 25 watts with a 30 foot high antenna and Jack reports that packet transmission has been completed as far away as Indianapolis. Jack says that very soon, the system will be moved to their antennas and connected to one at 500 feet. With this system, Jack expects to have a reliable digital communications link to Chicago and, thru Chicago machines, to Wisconsin, St. Louis, and points west. Thru the Indianapolis machines, the HAMS, Inc. digipeater will have access to networks south and east.

Jack says that this HAMS, Inc. machine is an open machine and all who are interested in using and experimenting with this exciting communications mode are welcome to use it. It operates on the national packet radio two meter frequency of 145.010 MHz and uses standard AX.25 protocols. Bruce Clark, KA9OCC, is the technical coordinator for this project. The call of this machine is K9LSB-1.

ED. NOTE. Congratulations to Jack and HAMS, Inc. for putting Fort Wayne on the digital communications map! Digipeating is one of the most exciting forms of communications in the ham radio arsenal. Envision a nationwide network of ham radio computers. Envision the public service aspects, the message handling capabilities and the fun of it!

The hobby is changing...like it or not! Like the buggy whip salesmen of the late 1890s, we will either find a new product to sell or we will become obsolete! Those are our only choices.

WET NET REPORT

Tom, KA9ERC

There have been many inquiries concerning the "INDIANA WET NET"...what it is; what it does; who does it; and why. The following is an attempt to inform people of the net and of the community service performed by amateur radio. I am also interested in spreading the word about the dedication of a few hams in the performance of community service.

The WET NET is a network of stations around the state of Indiana which regularly report on rainfall at their locations. They have rain gages and report via two meter repeaters and 80 meters, depending on their locations in the state. The rainfall reports are gathered by a central station and collated into a report for the National Weather Service (NWS). Other organizations use the data as well, particularly the Purdue University staff interested in climatology and hydrology.

In order to describe how the WET NET works, I have come up with this fictional account of a storm passing thru the state. The hams who take part are all volunteers; they are using their hobby as the Federal Government intends its valuable radio spectrum to be used...in the public interest.

On a winter's night, late in February, a warm front approaches the state. There are already six inches of packed snow on the ground. The forecast is for the temperatures to

climb into the upper forties, with moderate to heavy rains. This forecast prompts the issuance of a flash flood watch. The ground is still frozen throughout the state and virtually all precipitation is expected to run off, causing waterways to overflow their banks.

The storm arrives a few hours early, giving an indication of its potential. At 4:30pm the Indiana Traffic Net on 3910 KHz begins to receive reports on afternoon precipitation. Though they are few in number, they begin to give an indication of what's to come. There is much talk about the thunder and the static on the band. Many operators have turned off their rigs to wait out the storm.

These few reports of 1/4 to 1/2 inch rainfall are relayed to the NWS and combined with the reports of their observers. Some of the river level reporting stations are reporting increasing levels...but no overflow yet.

The following morning, the early reports begin at 5am. Mac, WA9OKK, receives a report of one inch of rain over the Rushville repeater. A few minutes later, he receives a call on the Anderson repeater from a ham who reports that he just passed over the White River bridge and that the river is about to overflow its banks. No rainfall amount is given.

Also at 5am, the reports are beginning to come in to the control operator in the Northeast corner of the state, on the 147.21 repeater. Angola has reported 1.25 inches with lowland flooding. Ligonier reports 1.5 inches of rain on its 147.15 repeater with water covering roads in low areas.

Wayne, KA9FFO, in Yeoman, is taking early reports via the Monticello repeater. Rensselaer reports 1.1 inches. Spud in Hammond says he's received an inch of rain at his QTH.

Meanwhile, the Vicksburg machine is getting activity. Linton reports 1.75 inches; Sullivan reports 1.8 and Bicknell calls in a 1.68 inch report. Some Southeast members report through the Rushville repeater that streams are leaving their banks after 1.5 to 1.85 inch rainfalls.

As the six o'clock hour passes, the reports of flooding continue. The rain is lighter in the Northeast; but, the flooding seems worse. The NWS observers have also been reporting rising rivers from snow melt and the rain. The first NWS news releases are due. Their observers report some rainfall and flooding are likely; but, not enough data is available to predict where the flooding will occur. In a couple of hours the ham radio reports will be received. That will help but all that data has to be assimilated. As you might expect times like these are when the weather service is swamped with work. Another pair of hands or a computer to receive the ham reports would be a great help. The news release says that some flash flooding is expected in the lowlands.

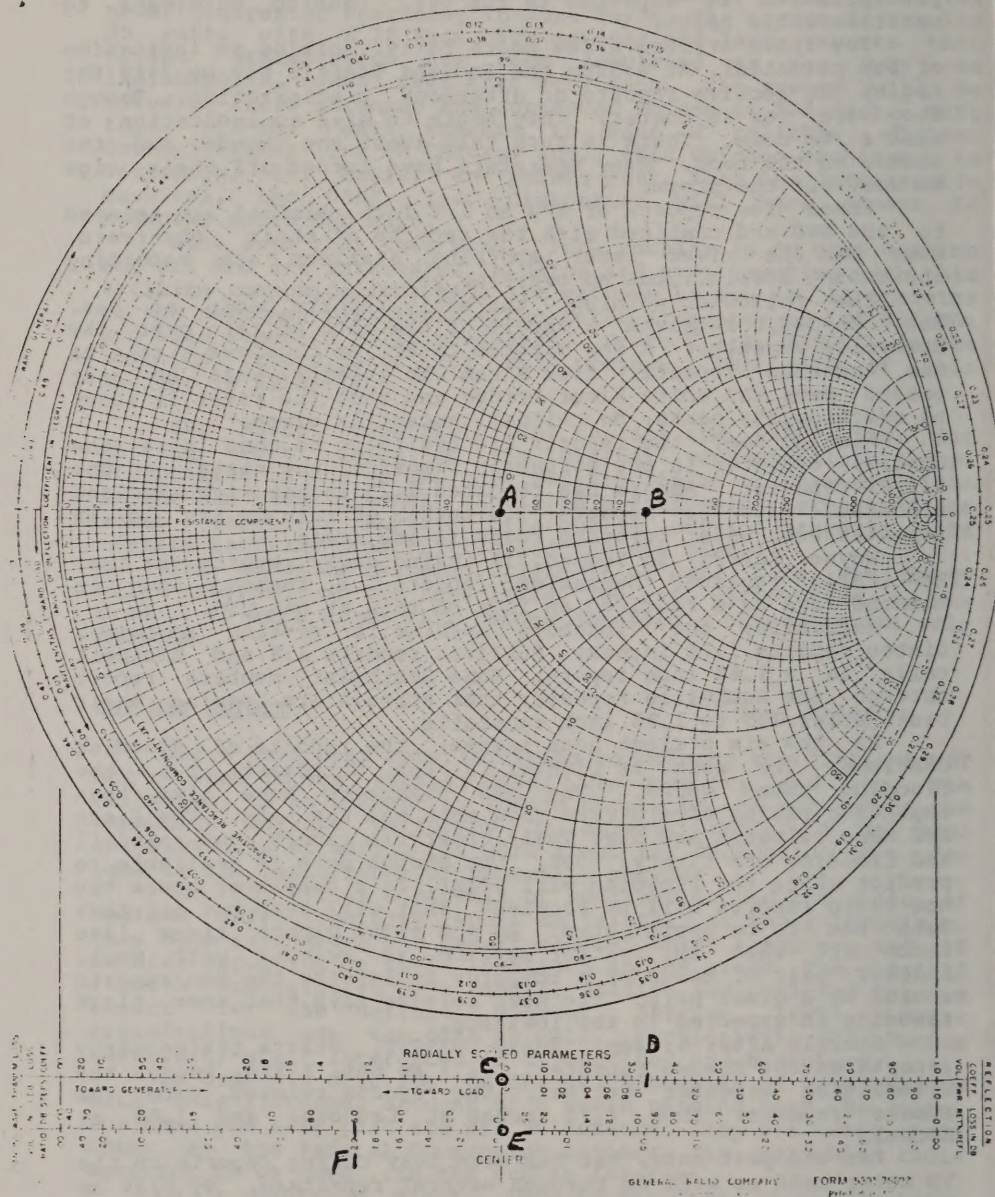
Shortly after 6:30am, Russ, WA9GKT, starts taking early reports on the Kokomo repeater. At 7 am Bob, K9KTH, begins the Bloomington Repeater Wet Net. The reports relayed from the Shoals repeater show 1.75 inches at Lagootee and 1.85 at Michel.

For the past hour, Mac has been busy taking reports on the 75 meter band as well as through several repeaters. By 8:10 am he will have collected about 23 reports. In the Northeast, another busy control operator is busy taking reports from five

TITLE **FIGURE 1**

DATE

IMPEDANCE COORDINATES—50-OHM CHARACTERISTIC IMPEDANCE



GENERAL RADIO COMPANY

FORM 5001-10-57

Printed in U.S.A.

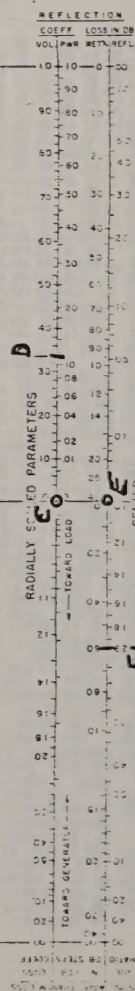
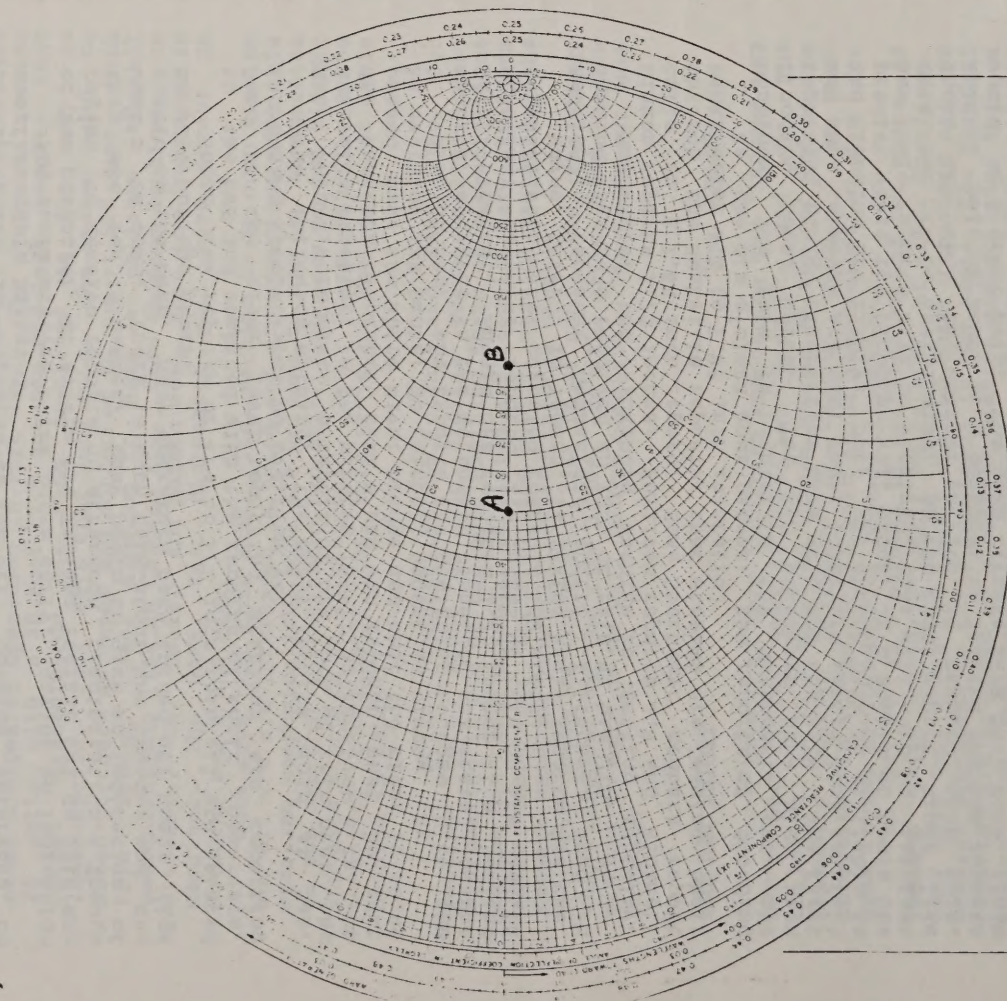
1985

<p>y Days"</p> <p>ast n, 2300 wpm</p> <p>0609 1907</p>	<p>5</p>	<p>6</p> <p>Summer Daze Sprint, 2100 to 0300 Sat. QRP.ARC.</p>	<p>7</p>
<p>0616 1855</p>	<p>12</p> <p>FWRC BOARD MEETING 1930</p>	<p>13</p>	<p>14</p> <p>European DX Test SSB ARRL VHF QSO Party</p>
<p>0623 1843</p>	<p>19</p>	<p>20</p> <p>FWRC CLUB MEETING... MERGER VOTE!!! 1930</p>	<p>21</p> <p>Scandinavia CW Contest Can-Am Contest, CW</p>
<p>0630 1831</p>	<p>26</p> <p>Halley's Comet 225 Million miles from Earth...and closing</p>	<p>27</p>	<p>28</p> <p>Scandinavia SSB Contest Can-Am contest, SSB Harvest Moon</p>
<p>Most weekend contests run for two days beginning 0001 UTC, Saturday (1900 local Friday). For contest rules see QST or CQ Magazines. All times given are in local time.</p>			<p>sunrise & sunset times, compliments of KR9U and his computer.</p>

TITLE *Figure 1*

DATE

IMPEDANCE COORDINATES—50-OHM CHARACTERISTIC IMPEDANCE

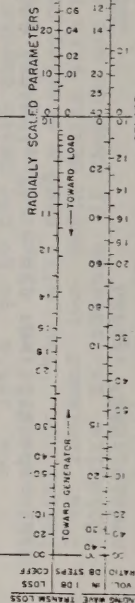
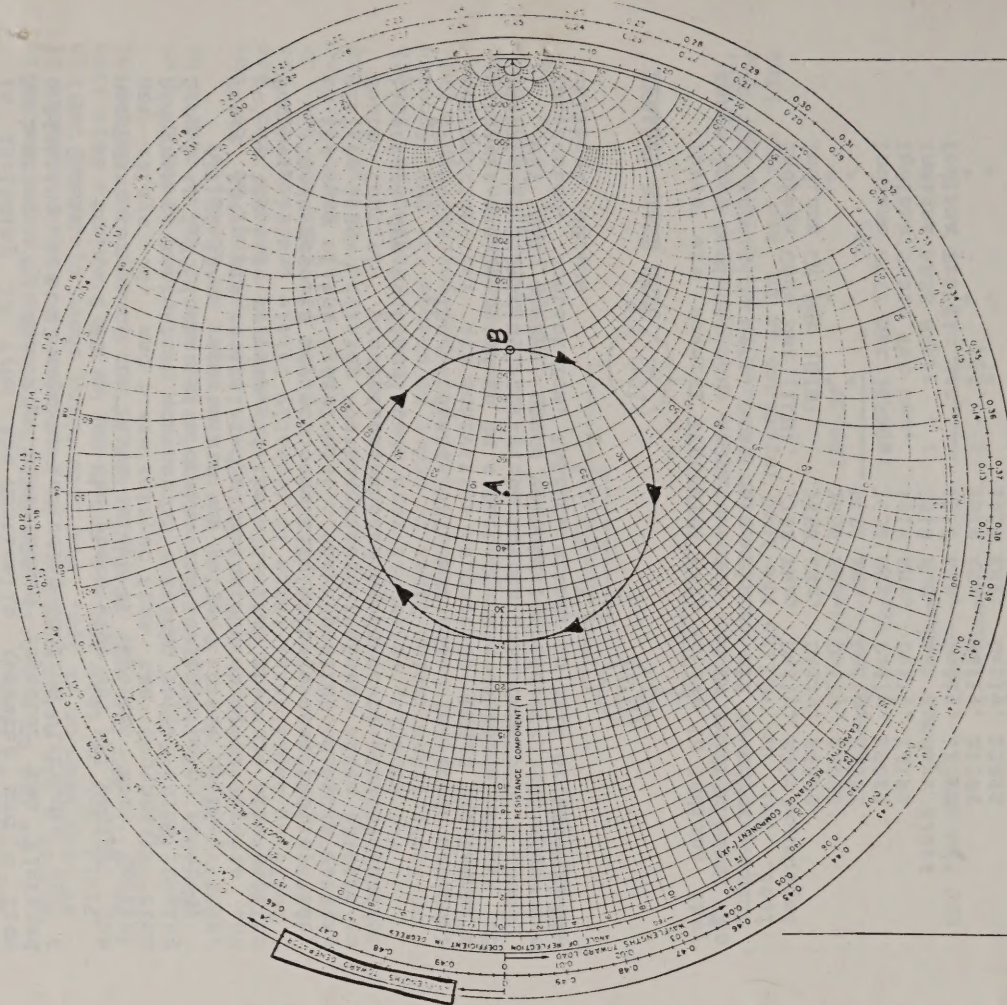


GENERAL RADIO COMPANY FORM R301 7502

TITLE *Figure 2*

DATE

IMPEDANCE COORDINATES—50-OHM CHARACTERISTIC IMPEDANCE



GENERAL RADIO COMPANY FORM R301 7502

SEPTEMBER 1985

1	MURPHY SWAP NET 1900 Bloomington, IN Hamfest	2	10-X NET 1930	3	DX NET FWRC NET 2100	4	YL-RL "Howdy Days" West Coast Qual Run, 2300 10-35 wpm sunrise 0609 sunset 1907	5		6	Summer Daze Sprint, 2100 to 0300 Sat. QRP.ARC.	7		
8	MURPHY SWAP NET 1900 WLAQ Qual Run, 10-35 wpm, 2100	9	10-X NET 1930 QCWA Invitational Party, 0700 till 1500 Sept 15th.	10	DX NET FWRC NET 2100	11		12	FWRC BOARD MEETING 1930	13		14	European DX Test SSB ARRL VHF QSO Party	
15	MURPHY SWAP NET 1900	16	10-X NET 1930	17	DX NET FWRC NET 2100	18	sunrise 0623 sunset 1843	19		20	FWRC CLUB MEETING... MERGER VOTE!!! 1930	21	Scandinavia CW Contest Can-Am Contest, CW	
22	MURPHY SWAP NET 1900 Autumn Equinox	23	10-X NET 1930	24	DX NET FWRC NET 2100	25	sunrise 0630 sunset 1831	26	Halley's Comet 225 Million miles from Earth...and closing	27		28	Scandinavia SSB Contest Can-Am contest, SSB Harvest Moon	
29	MURPHY SWAP NET 1900	30	10-X NET 1930	DX NET 1930 FWRC NET 2100				Most weekend contests run for two days beginning 0001 UTC, Saturday (1900 local Friday). For contest rules see QST or CQ Magazines. All times given are in local time.						sunrise & sunset times, compliments of KR9U and his computer.

COLAB AMATEUR RADIO EQUIPMENT AND ELECTRONICS

WE AT COLAB ARE AWARE OF THE CONSUMER CONCERN IN REGARDS TO OUR FLUCTUATING HOURS. DUE TO SUGGESTIONS FROM OUR CUSTOMERS ALL WHO WORK VARIOUS SHIFTS, WE HAVE ESTABLISHED THE FOLLOWING HOURS:

TUESDAY AND THURSDAY	9AM TO 12NOON
WEDNESDAY (COFFEE NIGHT)	6PM TO 9PM
SATURDAY	12NOON TO 4PM

WEDNESDAY NIGHT IS COFFEE NIGHT, THAT MEANS EVERY WEDNESDAY FROM 6 TO 9PM COLAB WILL OFFER IT'S CUSTOMERS FREE COFFEE. IT WILL BE A GREAT TIME TO MAKE EYEBALLS WITH OTHER HAMS YOU'VE ONLY TALKED TO ON THE RADIO BEFORE, ENJOY YOUR COFFEE AND BROWSE.

DENNIS GAGNON HAS BEEN WITH COLAB SINCE DECEMBER OF 1984 AND IS CURRENTLY PURSUING STUDIES TO OBTAIN HIS NOVICE TICKET. DENNIS IS EAGER AND ENTHUSIASTIC ABOUT THE HOBBY AND ENJOYS ASSISTING THOSE WHO COME INTO THE STORE. STOP IN AND SAY HI TO DENNIS.

COLAB'S 3RD ANNIVERSARY SALE

YES, IT HAS BEEN OVER THREE YEARS SINCE COLAB FIRST OPENED IT'S DOORS OUT ON COLISEUM BLVD, THAT WAS MARCH 27, 1982. SINCE YOU, OUR CUSTOMERS, HAVE MADE COLAB A SUCCESS WE ARE GOING TO MAKE YOU SUCCESSFUL, SUCCESSFUL IN PURCHASING THE ITEM YOU WANT AT THE PRICE YOU WANT TO PAY.

UP TO 50% OFF ON SELECTED MERCHANDISE

COLAB WILL CELEBRATE IT'S 3RD ANNIVERSARY BY OFFERING ALMOST ALL ITEMS IN THE STORE AT PRICES BELOW OUR COMPETITORS, YES, EVEN LOWER THAN A.E.S. THIS SALE IS NOT ONE TO MISS OR YOU'LL MISS OUT ON SOME REAL NICE EQUIPMENT AT EVEN NICER PRICES. ALSO, IF YOU AND A FRIEND ARE GOING TO INVEST IN SOME MORE HAM EQUIPMENT STOP IN AT COLAB WE ARE NOW OFFERING SPECIAL PRICING ON GROUP PURCHASES.

CHECK OUT OUR SALES SHEET ELSEWHERE IN THIS CLASSIFICATION

**COLAB
1305 GARFIELD STREET
FORT WAYNE, IN 46805
(219) 422-2305**

FORT WAYNE RADIO CLUB, INC.
AND
FORT WAYNE REPEATER ASSOCIATION, INC.

AGREEMENT AND PLAN OF MERGER

THIS AGREEMENT AND PLAN OF MERGER, dated June 21, 1985, pursuant to the Indiana General Not For Profit Corporation Act (1935), by and between FORT WAYNE RADIO CLUB, INC., an Indiana not-for-profit corporation (hereinafter sometimes called RADIO CLUB and sometimes called the Surviving Corporation), and FORT WAYNE REPEATER ASSOCIATION, INC. an Indiana not-for-profit corporation (hereinafter sometimes called REPEATER ASSOCIATION) (RADIO CLUB and REPEATER ASSOCIATION being hereinafter sometimes called the Constituent Corporations;

WITNESSETH THAT:

WHEREAS, RADIO CLUB is a corporation organized and existing by virtue of the Indiana General Not For Profit Corporation Act (1935), having been incorporated on November 14, 1952, by the filing of its Articles of Incorporation with the Secretary of State of the State of Indiana; and

WHEREAS, REPEATER ASSOCIATION is a corporation organized and existing by virtue of the Indiana Not-For-Profit Corporation Act of 1971, having been incorporated on August 6, 1984, by the filing of its Articles of Incorporation with the Secretary of State of the State of Indiana; and

WHEREAS, the Board of Directors of each of the Constituent Corporations deems it advisable and to the advantage and welfare of such corporations and their respective members that REPEATER ASSOCIATION be merged with and into RADIO CLUB pursuant to the following terms and conditions;

NOW, THEREFORE, RADIO CLUB and REPEATER ASSOCIATION have agreed to merge into a single Indiana not-for-profit Corporation, RADIO CLUB, which shall continue its corporate existence under the laws of the State of Indiana. The terms and conditions of the merger, the mode of carrying the same into effect, and such other details and provisions as may be required by law or deemed necessary or proper are hereinafter set forth.

I.

***Name, Certificate of Incorporation, Constitution and Bylaws,
Directors, and Officers***

1.1 Name of Surviving Corporation. The name of the corporation that shall survive the merger is, and after the Effective Date (as hereinafter defined) shall continue to be, FORT WAYNE RADIO CLUB, INC.

1.2 *Certificate of Incorporation.* The Certificate of Incorporation of RADIO CLUB, as in effect on the Effective Date, shall from and after the Effective Date be and continue to be the Certificate of Incorporation of the Surviving Corporation until changed or amended as provided by law.

1.3 *Constitution and Bylaws.* The Constitution and Bylaws of RADIO CLUB as in effect on the Effective Date shall from and after the Effective Date be and continue to be the Constitution and Bylaws of the Surviving Corporation until changed as therein provided.

1.4 *Directors.* The directors of RADIO CLUB in office on the Effective Date shall be the directors of the Surviving Corporation until their successors are elected in accordance with the Constitution and Bylaws of the Surviving Corporation and shall have duly qualified.

1.5 *Officers.* The officers of RADIO CLUB in office on the Effective Date shall be the officers of the Surviving Corporation until their successors are elected in accordance with the Constitution and Bylaws of the Surviving Corporation and shall have duly qualified.

II.

Membership, Dues

2.1 *Membership.* Each member of REPEATER ASSOCIATION on the Effective Date shall become a member of the Surviving Corporation of the appropriate class of membership as set forth in the Constitution and Bylaws of the Surviving Corporation.

2.2 *Dues.* Each member of REPEATER ASSOCIATION whose dues are fully paid on the Effective Date shall be considered as having fully paid his or her dues to the Surviving Corporation on the Effective Date. From and after the Effective Date, all members of the Surviving Corporation shall pay dues to the Surviving Corporation in such amounts and at such times as its Constitution and Bylaws provide.

III.

Approvals, Effective Date, Filing Date, and Certain Effects of Merger

3.1 *Membership Adoption.* Meetings of the members of both RADIO CLUB and REPEATER ASSOCIATION to consider and act upon this Agreement and Plan of Merger shall be called to be held in accordance with the Indiana General Not For Profit Corporation Act (1935) on or before August 31, 1985.

3.2 *Board Approval; Execution.* If this Agreement and Plan of Merger is adopted by the affirmative vote of two-thirds of the members of each of the Constituent Corporations entitled to vote in respect thereof, then as soon as practicable after the expiration of a period of thirty days after the adoption thereof by the members of the last of the Constituent Corporations in point of time to adopt the same, the same shall again be considered by the Board of Directors of each of the Constituent

Corporations. Upon approval again by the Board of Directors of each of the Constituent Corporations, and their authorization of the execution hereof, this Agreement and Plan of Merger shall be executed by each of the Constituent Corporations in the manner provided by law.

3.3 *Articles of Merger.* Upon execution of this Agreement and Plan of Merger by each of the Constituent Corporations, Articles of Merger shall be executed and filed in the form and manner provided by law.

3.4 *Effective Date.* This Agreement and Plan of Merger shall become effective on the date on which it and the Articles of Merger referred to above, duly certified and acknowledged, have been filed in the office of the Secretary of State of the State of Indiana.

3.5 *Certain Effects of Merger.* On the Effective Date, the separate existence of REPEATER ASSOCIATION shall cease, REPEATER ASSOCIATION shall be merged into RADIO CLUB, and the Surviving Corporation, without further action, shall succeed to and shall possess and enjoy all the rights, privileges, immunities, powers, purposes, and franchises both of a public and private nature, and be subject to all restrictions, disabilities, and duties of REPEATER ASSOCIATION; and all property and all debts due to REPEATER ASSOCIATION on whatever account, causes of action, and every other asset of REPEATER ASSOCIATION shall be vested in the Surviving Corporation as effectually as they were vested in REPEATER ASSOCIATION, and all property, rights, privileges, powers, and franchises, and all and every other interest, shall be thereafter as effectually the property of the Surviving Corporation as they were of REPEATER ASSOCIATION; and the title to any property vested in REPEATER ASSOCIATION shall not revert or be in any way impaired by reason of the merger or the statutes providing therefor; provided, however, that all rights of creditors and all liens upon the property of REPEATER ASSOCIATION shall be preserved unimpaired, and all debts, liabilities, obligations, penalties, and duties of REPEATER ASSOCIATION shall thenceforth attach to the Surviving Corporation and may be enforced against it to the same extent as if they had been incurred or contracted by it. No liability, obligation due or to become due, claim, or demand for any cause existing against either Constituent Corporation, or any member, officer, or director thereof, shall abate or be discontinued by the merger, but may be enforced, prosecuted, settled, or compromised as if the merger had not occurred, or the Surviving Corporation may be substituted in such action or proceeding in place of REPEATER ASSOCIATION. At any time, or from time to time, after the Effective Date, the last acting officers of REPEATER ASSOCIATION, or the corresponding officers of the Surviving Corporation, may, in the name of REPEATER ASSOCIATION, execute and deliver all such proper deeds, assignments, and other instruments and take or cause to be taken all such further or other action as the Surviving Corporation may deem necessary or desirable in order to vest, perfect, or confirm in the Surviving Corporation title to and possession of all of REPEATER ASSOCIATION's property, rights, privileges, immunities, powers, purposes, and franchises and otherwise to carry out the purposes of this Agreement and Plan of Merger.

IV.

Amateur Radio Repeater Operation

4.1 *Repeaters.* Without limiting the generality of the foregoing, upon the Effective Date REPEATER ASSOCIATION shall take whatever action is necessary or desirable to transfer to the Surviving Corporation its amateur radio repeaters and all appurtenances thereto.

4.2 *Cash.* Notwithstanding the foregoing, the Surviving Corporation shall account separately for any cash received from REPEATER ASSOCIATION upon merger and shall use said cash, until it is exhausted, solely for the operation, maintenance, and upgrading of the aforementioned amateur radio repeaters.

4.3 *Call Sign; License.* Upon the Effective Date, or as soon as practicable thereafter, the Surviving Corporation shall cause the aforementioned repeaters to use the amateur radio call sign of RADIO CLUB, W9TE, and shall surrender REPEATER ASSOCIATION's club license and call sign, WA9EAU, to the Federal Communications Commission.

4.4 *Repeater Operation.* Upon the Effective Date, the Surviving Corporation shall assign responsibility for operation and maintenance of the aforementioned repeaters to its Trustee. The Surviving Corporation shall take whatever steps are necessary to form a Technical Advisory and Repeater Operations Committee of no less than four members, with the Trustee as Chairman.

IN WITNESS WHEREOF, each of the Constituent Corporations has caused this Agreement and Plan of Merger to be executed in its corporate name by its President and attested by its Secretary on the date shown.

FORT WAYNE RADIO CLUB, INC.

By _____
President

FORT WAYNE REPEATER ASSOCIATION, INC.

By _____
President

Date: _____

COLAB'S 3RD ANNIVERSARY SALE

COLAB'S 3RD ANNIVERSARY SALE IS NOW IN PROGRESS. JUST TAKE A LOOK AT THE ITEMS IN STOCK BELOW AND COMPARE PRICES. ALL SALE ITEMS ARE CASH ONLY.

ICOM 720A LOW BAND TRANSCEIVER W/GENERAL COV REC.	\$725.00
ICOM 271A 2MTR BASE TRANSCEIVER	\$559.00
ICOM 25H 2MTR MOBILE 45WATT	\$299.95
ICOM AT100 AUTOMATIC ANTENNA TUNER	\$299.95
ICOM AT500 AUTOMATIC ANTENNA TUNER	\$379.00
ICOM IC2AT 2MTR HANDHELD	\$199.00
ICOM IC4AT 440MHZ HANDHELD	\$210.00
ICOM LEATHER CASE FOR ABOVE HANDHELDS	\$ 25.00
ICOM SM5 DESK MICROPHONE	\$ 29.95
ICOM IC2KL W/POWER SUPPLY HF LINEAR	1250.00
ALL ICOM FILTERS	25% OFF
CUSHCRAFT 440MHZ BEAMS 6 & 11 ELEMENT	15% OFF
CUSHCRAFT ARX450B 440 RINGO	10% OFF

SPECIAL JUST ARRIVED!!!! KDK FM-240 2METER MOBILE

AND YOU THOUGHT THE ICOM 27A WAS SMALL JUST WAIT UNTIL YOU FEAST YOUR EYES ON THIS TINY MOBILE RIG. THE KDK FM-240 BOASTS A LCD DISPLAY, BACK-UP MEMEORY MODULE, 5 OR 25 WATTS, SPEECH SYNTHESIZER, BUILT-IN PL, SPEAKER MIKE, 16 MEMORIES, AND MORE. COLAB HAS RECIEVED ONE OF THE FIRST FEW OFF OF THE ASSEMBLY LINE, (THE SERIAL NUMBER IS UNDER 70) AND AFTER EXAMINING AND OPERATING FIND IT TO BE ONE OF THE MOST ADVANCED 2 METER RIGS AROUND FOR THE PRICE.

TO SHOW OUR APPRECIATION FOR YOUR SUPPORT AND OUR THIRD ANNIVERSARY CELEBRATION, COLAB IS GOING TO OFFER YOU A FANTASTICALLY LOW PRICE.

KDK FM-240 AMATEUR NET \$369.95 SALE PRICE \$329.00

ALL PRICES ARE IN EFFECT WHILE QUANTITIES LAST
OR UNTIL 9-30-85. ALL SALE ITEMS ARE CASH ONLY

SEPTEMBER

1 MURPHY SWAP NET 1900 Bloomington, IN Hamfest	2 10-X NET 1930	3 DX NET 1930 FWRC NET 2100	4 YL "Ho West Qual 10-3 sunrise sunset
8 MURPHY SWAP NET 1900 WIAW Qual Run, 10-35 wpm, 2100	9 10-X NET 1930 QCWA Invitational Party, 0700 till 1500 Sept 15th.	10 DX NET 1930 FWRC NET 2100	11 sunrise sunset
15 MURPHY SWAP NET 1900	16 10-X NET 1930	17 DX NET 1930 FWRC NET 2100	18 sunrise sunset
22 MURPHY SWAP NET 1900 Autumn Equinox	23 10-X NET 1930	24 DX NET 1930 FWRC NET 2100	25 sunrise sunset
29 MURPHY SWAP NET 1900	30 10-X NET 1930	DX NET 1930 FWRC NET 2100	

additional repeaters. In Muncie, K9OIM, who is functionally blind, collects 4 reports. These will all later be relayed on the 75 meter WET NET.

At 7:55am, the Kokomo WET NET begins and 38 stations check in including 13 from the Monticello repeater and 3 from Rochester. By 8am the Bloomington repeater has finished collecting its 42 reports including 15 from Vicksburg and 6 from Shoals.

It is now 8:10 am and the state-wide WET NET begins. The Northeast corner of the state relays 17 reports, West Central net relays 10, and 5 are relayed from the Southeast. From Anderson to Yankeetown another 35 stations report rains ranging from 1 to 2.25 inches with creeks and lowlands being flooded.

All of these reports are now relayed to NWS by Ray, KM9B. There they are assimilated with the NWS observer reports and put on the wire service. If there is time they are also sent to Purdue.

These reports may not seem like much to some people; but, to the eyes of the hydrologist, they spell flooding. A warning will be issued for the Northeast corner of the state as well as South Central: precautions should be taken to prevent loss of livestock due to flooding.

ED NOTE: The Indiana WET NET has received national recognition for its activities supporting NWS. The state's amateurs can be proud to be a part of this cohesive network of volunteers providing service to the entire state!

WET NET always needs volunteer observers. If you are interested, contact Tom, KA9ERC, either on 3910 or through his callbook address.

INDIANA STATE NETS

There are several statewide nets active in Indiana they range from beginner code nets to voice and CW traffic nets, to weather reporting nets. Most nets welcome all newcomers.

Indiana Code Net (ICN),	3708 KHz,	Daily, 2315Z
Indiana CW Net (QIN),	3656 KHz,	Daily, 0000Z
" " "	3656 KHz,	Daily, 0300Z
" " "	3656 KHz,	Daily, 1430Z
Indiana RTTY Net (IRN),	3630 KHz,	Daily, 0000Z
Indiana State Wet Net,	3910 KHz,	Daily, 1310Z
Indiana ARES Net,	3910 KHz,	last Sunday, 2330Z
Indiana Traffic Net,	3910 KHz,	Daily, 1330Z
" " "	3910 KHz,	Daily, 2130Z
" " "	3910 KHz,	Daily, 2300Z

Check in and become active! There are new friends just waiting to be made!

NOTES FROM YOUR LOCAL ATC

Larry, KB9C

I'd like to thank everyone who helped at this year's Field Day. Special thanks to those who helped at the VHF operation. I

think it was worth having six and two meter stations on the air. I hope that VHF has a place in our Field Day operations in the years to come.

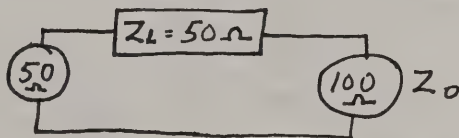
We got on a little late Saturday and just caught the tail-end of a six meter opening. We could have had more contacts if we had been on at 1pm. One nice thing about operating VHF in Field Day is that you are not bound by the 15 minute rule like on HF. You can work stations one after another on different bands.

For those of you who didn't make it to last month's club meeting, we had an introduction to the use of Smith charts by Harry, N9AR. I still say he holds the chart on its side!

A question was raised after the meeting as to the relevance of using Smith charts to amateurs. Unless you are building amplifiers, there is probably little practical use for these charts...especially since computer programs can now do everything a Smith chart can and then some. However, for learning the general concepts of matching circuits and transmission lines, they can't be beat!

For example, we've all read about hams changing the length of their transmission lines in order to change the SWR. Knowing how to use a Smith chart would help you show yourself that this just can't happen!

Let's take the example of a 50 ohm transmission line that feeds a load (antenna, for example) of 100 ohms. The generator (transmitter) will be 50 ohms. Our circuit looks like the following:



To use the Smith chart, let us define a reflection coefficient, Gamma, (Γ) at the junction of the transmission line and the load. Let us define the load impedance as Z_0 and the line impedance as Z_L .

$$\text{Gamma} = \frac{Z_L - Z_0}{Z_L + Z_0} = \frac{100 - 50}{100 + 50} = .333$$

$$\text{and the SWR is } \frac{1 + \text{Gamma}}{1 - \text{Gamma}} = \frac{1 + .333}{1 - .333} = 2$$

Now let's go to the Smith charts I've included in this issue and find these same numbers without the use of a calculator. You will need a drawing compass to make a circle. I've included two Smith charts with this article but I'll apologize in advance if they do not reproduce well in the newsletter.

Anyway, the 50 ohm characteristic of the feed line is found at point A of Figure 1. This point is $50 + j0$ ohms impedance. The load is $100 + j0$ ohms impedance and is at point B on the chart. The $j0$ term tells you that there is no inductive or capacitive reactance...the load is a pure

resistance. Measure off the distance from point A to point B and go to the "bottom" of the chart where all the different scales are. The top right scale is the voltage reflection coefficient, Gamma. The distance from the center of the scale, point C out to point D is the previously measured distance between points A and B. The Gamma coefficient can be read directly off the scale as .333.

Now let's find the SWR. The bottom left scale is the voltage standing wave ratio, SWR. Again we measure off the same distance from point E (the center of the scale) to point F. The scale reads an SWR of 2.0. So, knowing the impedance of the feedline and the load, you can get both reflection coefficient and SWR from the Smith chart with no calculations needed!

Look at Figure 2 and you will see that the outside edge of the Smith chart has two scales. One is labeled "Wavelengths toward Generator" and the other, "Wavelengths toward Load." Set your compass at point A (feedline impedance of 50 ohms) and draw a circle centered at point A that goes thru point B (load impedance of 100 ohms). This circle represents the impedance along the feedline as we move $1/2$ wavelength. The clockwise arrows indicate we are moving along the transmission line toward the load, as if we are making the transmission line longer and longer.

We see that the 100 ohm load is repeated every half wavelength along the line. When the circle is off of the A-B center line, the load is a complex impedance having capacitive or inductive reactance as well as resistance.

The point I'm making is this: for a given load and transmission line, the impedance that a generator (transmitter) sees varies along the line and can be changed by varying the line length; but, the SWR along that line (represented by the size of the circle) is constant. No matter where you are on the line, the SWR is 2.0!

Why, then, would an SWR bridge show a changing SWR with a change in feedline length? Maybe the diodes in the bridge are changing characteristics because of the change in voltage they see as the line is changed. If the SWR readings change significantly when moving the bridge a few feet one way or another in the line, it probably indicates "antenna" currents flowing along the outside of the coax. It could also indicate an unreliable instrument. But, it is NOT because the SWR is varying with line length. Some writers insist that the bridge must be placed at a half-wave interval from the load to obtain a correct reading. THIS IS INCORRECT! All readings are invalid if they vary much along the line.

If you would like further information on this, please read Walt Maxwell, W2DU, in his fine articles that have appeared in QST. His articles were printed in the mid-1970s. Every once in a while you will see an article in the Technical Topics section of QST by Maxwell as he is a Technical Advisor to the League. His latest article ran in the March 1985 QST (you should still have this one). It is entitled "How Does a Transmatch Work?"

If you have any questions about this or any other technical topic, I can be reached at work at 429-7476. My home phone in the evening is 483-1042.

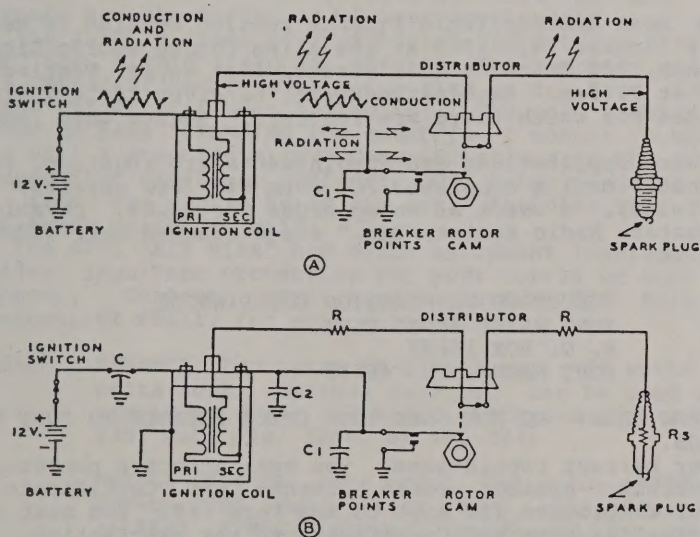
RFI TROUBLESHOOTING

As a follow-up to last month's article by Jerry Young, K9JHE, we are including a few more ideas he came up with in his recent talk to the club on the subject of hunting for and eliminating RF interference.

The gasoline engine is a prolific source of radio noise. Because of the high voltages used in the spark plug circuits and because of the high speed at which the spark is generated (fast rise and fall times for the spark pulse), harmonics in the RF spectrum are present at relatively high levels.

Those of us who use mobile FM gear in our cars are usually not bothered by ignition noise as much as those who use SSB mobile equipment. Noise can, however, radiate some distance from our cars so that we affect those whom we drive near.

Books have been written about suppressing RF interference from engines. Noise is generally radiated and conducted from the spark coil primary circuit directly into any mobile radio gear. Radiation from the high voltage secondary circuit can reach the radio equipment by radiation from the wiring and components.



Part A of the figure shows a typical spark circuit and where the noise comes from. Part B of the figure shows the addition of resistors and coaxial capacitors for RFI suppression. Most new cars come with resistor spark plugs which have internal RFI suppression resistors installed.

Another source of noise which can be found in your home is the light dimmer switch. This source of self-inflicted RFI is caused by the SCR (silicon controlled rectifier) which is a high speed switch. New dimmers in metal cases usually have

internal filtering to reduce radio noise. Older dimmers can have their RFI suppressed by the addition of .01 microfarad disc capacitors (at least 1.4KV rating for AC) placed across the input and output terminals.

More next month!

FUNFEST BANQUET PLANS

The club FUNFEST organization is underway for 1985! Preliminary plans are for a Banquet-style affair like last year. The attendance and response to last years's FUNFEST indicate that this is a popular format...especially if we can find another good guest speaker.

More details will be forthcoming in the months ahead. If you would like to help plan the affair, let President Bill know. As a minimum, mark Saturday, November 9 on your calendar for this year's FUNFEST.

And don't forget to mark Sunday, November 10 as well. That's the day of the Fort Wayne Hamfest...a really big show!

AUGUST TESTING SET FOR FORT WAYNE

Fred, KQ9R

The next amateur radio license testing session is set for Saturday, August 24, 1985 at the Allen County Public Library, Main Branch, 900 South Webster Street, Fort Wayne. Testing will commence at 9:30am. Examinations will be given for all classes of license for which there are requests, Novice thru Amateur Extra.

Advance applications and appointments are required. For an appointment, mail a completed FCC Form 610 (new version, June 1984 or later), a check or money order for \$4.00, payable to "DeVry Amateur Radio Society/VEC," and a stamped self-addressed envelope to:

VOLUNTEER EXAMINATION COORDINATOR
FORT WAYNE RADIO CLUB
P. O. BOX 15127
FORT WAYNE, IN 46885

DO NOT SEND CASH! DO NOT MAKE YOUR CHECK PAYABLE TO FORT WAYNE RADIO CLUB.

Under current regulations, you must attach a photocopy of your current amateur radio license and Certificate of Successful Completion (if any) to the Form 610. You must bring your original license and Certificate to the examination.

The completed application must be received no later than August 15, 1985. You will be sent a confirmation of appointment telling you the exact time you should arrive for testing.

You can obtain a copy of the new Form 610 from most amateur radio dealers or you can send an SASE to the above address.

If you have any questions, call me evenings at 219-432-2110.

SPLATTERINGS

About 250 people visited the Franke Park amateur radio exhibit during the Three Rivers Festival. The event included operating HF and VHF stations plus the club's display on our hobby. Congratulations to the AC-ARTS and FWRC members who set up this very worthwhile publicity event!

Another local old-timer passed away last month. Ralph (Bud) Severance, W9UUN, passed away in July. Bud was a long-time FWRC member and was FWRC president in 1941. He worked at Magnavox for many years as plant manager for the Urbana plant and was considered as the antenna expert in Fort Wayne when he was active. Our condolences to his family and friends.

Just another reminder...if you are planning to buy QSL cards, consider the FWRC Old Fort cards. The distinctive QSLs cost \$10 (100), \$14 (200), \$20 (500), or \$33 (1000). Order them at one club meeting and you'll have them at the next! See our Treasurer, Doug, N9BUQ, for more details.

Paul Taylor, WB9VCI, keeps the club callbooks between meetings. If you need to get a hot QSL out between meetings, give Paul a call. His Monroeville phone number is a local call, and Paul will not mind helping at all! He has the 1985 callbooks and the Spring and Summer supplements.

The July 16 issue of "Neighbors" had a first-class article about the club's Field Day effort. The reporter got all the facts straight and we even got a plug in for Code and Theory classes (if we ever have any again!). The only problem was that she had us hams "SPAMMING the country! I wonder if that's what they call a Freudian slip? Congratulations to the people who arranged that excellent publicity. Our hobby needs as much good will from the public as it can get. Articles like this are worth their weight in gold!

The ARRL "All Risk" ham radio equipment insurance program provides important protection for your mobile or home station equipment. Contact ARRL Headquarters, 225 Main Street, Newington, CT 06111, for more details.

FOR SALE REGENCY two meter FM linear amp, 25 watts in, 80 watts out, maximum ratings, can be used at lower levels as well, 13.8 VDC, with manuals, works fine, \$45. Call Jim, KR9U, at 485-2741

BTI-LK 2000 HD, late model, table top, \$750.

BTI-DL 2000 (dummy load) rare...make offer.

3-1000Z EIMAC, unused, purchased new at Dayton, \$295.

DRAKE TR-7/DR-7, mint & updated by Drake, AUX-7, PS-7, MS-7, 7077 mike, manuals, \$695.

SIGMA SWR/RF dual meters, 200-2000 watt, \$29.

PCS 3000, TT mike, service by AZDEN, \$199.

HEATH 2102 SWR/RF meter, manual, \$29.

3 1/2 amp 12VDC power supply indicator lights, \$25.

New, unopened WESTON Electric multi-meter, leather case, one left, originally over \$150, now only \$69.

HEATH 1410 electronic keyer and vibroplex key (jeweled), \$75. For all above, call during the day 432-3400. Ask for Herb, KC9DJ.

FROM: THE FORT WAYNE RADIO CLUB

P.O. BOX 15127

FORT WAYNE, IN 46885

ADDRESS CORRECTION REQUESTED

FMRC/FMRA MERGER PROPOSAL
ANNOUNCED...SEE
DETAILS INSIDE

TO:

WILLIAM KINDRED
4874 WOODWAY DRIVE
FT WAYNE, IN. 46815

Bulk Rate
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